Thousand Springs Surface and Ground Water Users and Stakeholders Fourth Public Meeting

"Development of Modeling Tools and Public Interfaces to be Used in the Implementation of Adaptive Management in the Thousand Springs Area"

Dave Tuthill

August 25, 2004

Discussion Outline

- Purposes of the Meeting
- Introduction of Participants
- Background
- Phases
  - MikeBasin Model
  - Development of Public Interfaces

Purposes of the Meeting

- Share the outcome of the Phase 1 MikeBasin Model development in the Thousand Springs research
- Discuss the future of this research effort, and of water management in the Thousand Springs area

Meeting Agenda

- Background Information — Dave Tuthill
- MikeBasin Model Developments and Setup — Carter Borden
- Model Demonstration — Jennifer Berkey
- Analysis of Effectiveness of of Public Interface — Kevin Ramsey
- Additional Modeling in the Thousand Springs Area — Sudhir Goyal
- Future Operations in Water District 36A — Tim Luke
- General Discussion — All

Introduction of Participants

- IDWR Planning and Technical Services Division
  - Hal Anderson, Administrator
  - Sudhir Goyal, Project Leader
- IDWR Water Management Division
  - Tim Luke, Supervisor, Water Distribution Section
  - Steve Burrell, Water Resource Engineer
  - Jennifer Berkey, Water Resource Engineer
  - Steve Clelland, SRBA Investigator
  - Carter Fritschle, Water Resources Supervisor
  - Cindy Yenter, Watermaster, Water District 130
  - Frank Erwin, Watermaster, Water District 36-A

Introduction of Participants

- DHI Water and Environment
  - Carter Borden, Contractor and Ph.D. Student, U of I
- University of Washington
  - Kevin Ramsey, M.S. Graduate, Dept. of Geography

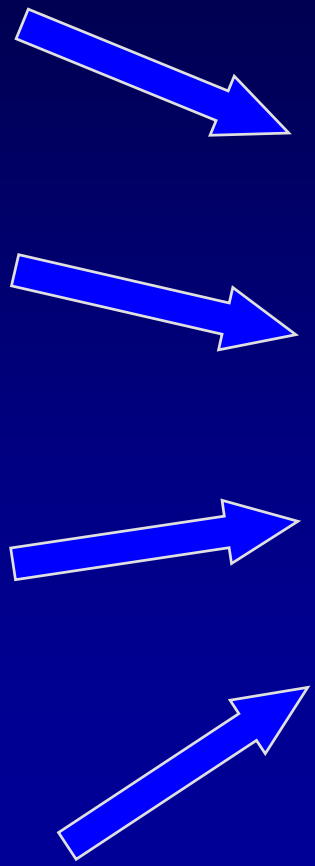
Background

Thousand Springs Area

Eastern Snake Plain Aquifer

IDWR Modeling

Stakeholder Involvement



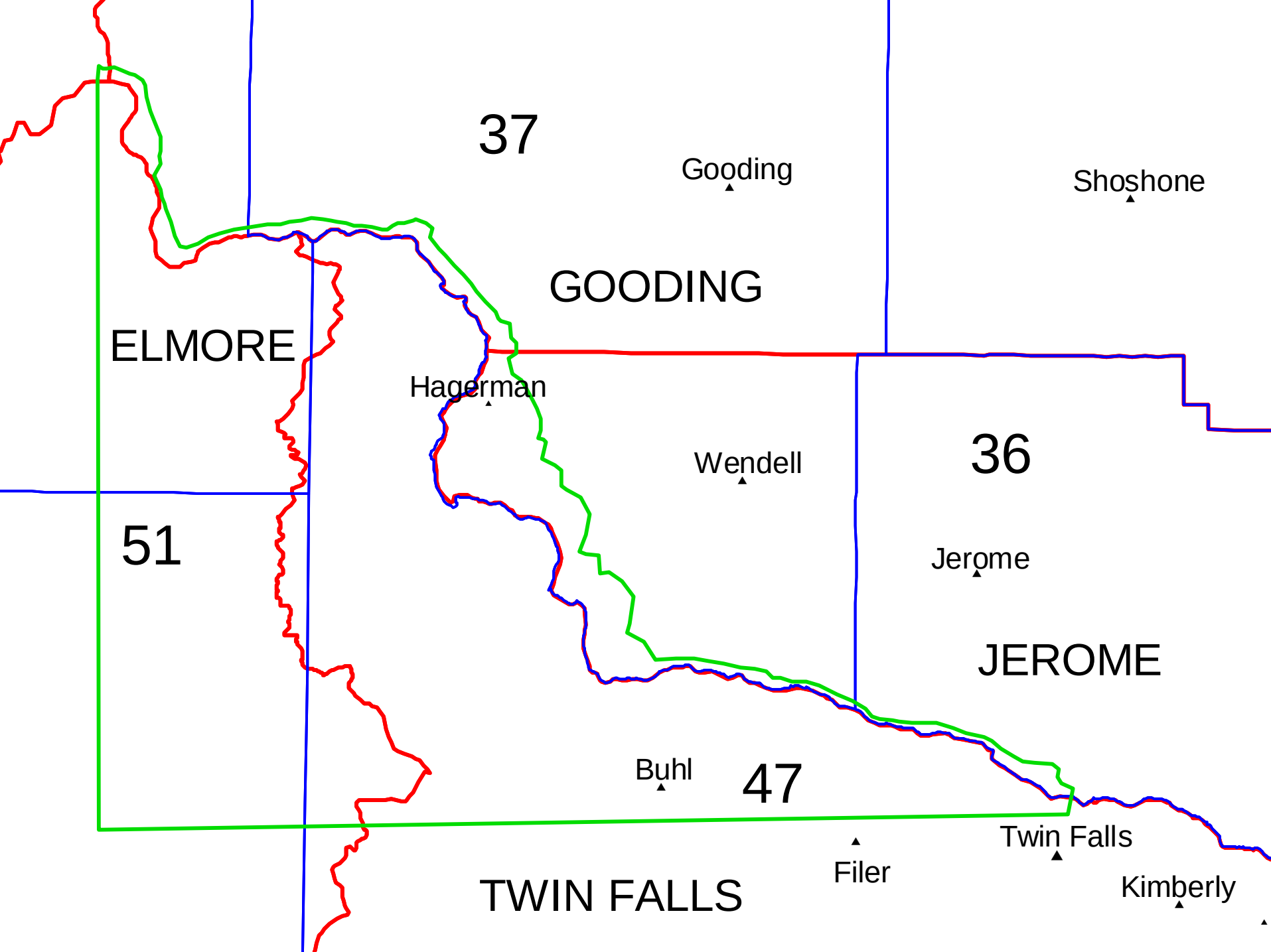
Phase 1a

Thousand Springs Modeling with MikeBasin

Enhanced Public Outreach

Phase 1b

Purpose: Identify and address *unmet* demand of senior water rights

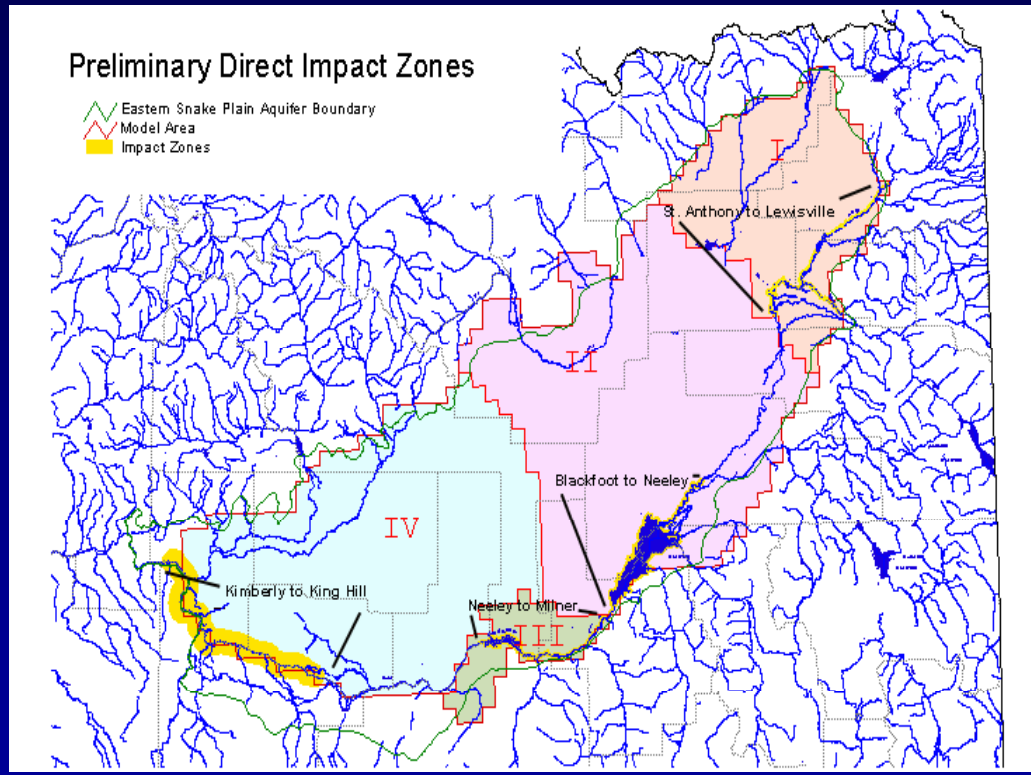

37
Gooding
Shoshone
GOODING
ELMORE
Hagerman
Wendell
36
51
Jerome
JEROME
Buhl
47
Twin Falls
Filer
Kimberly
TWIN FALLS

Thousand Springs Area

- Snake River Basin Adjudication largely complete in Basin 36 portion, being conducted in Basin 37 portion
- Some diversions have reported water shortages
- Flows in the Thousand Springs area are interconnected with the Eastern Snake Plain Aquifer

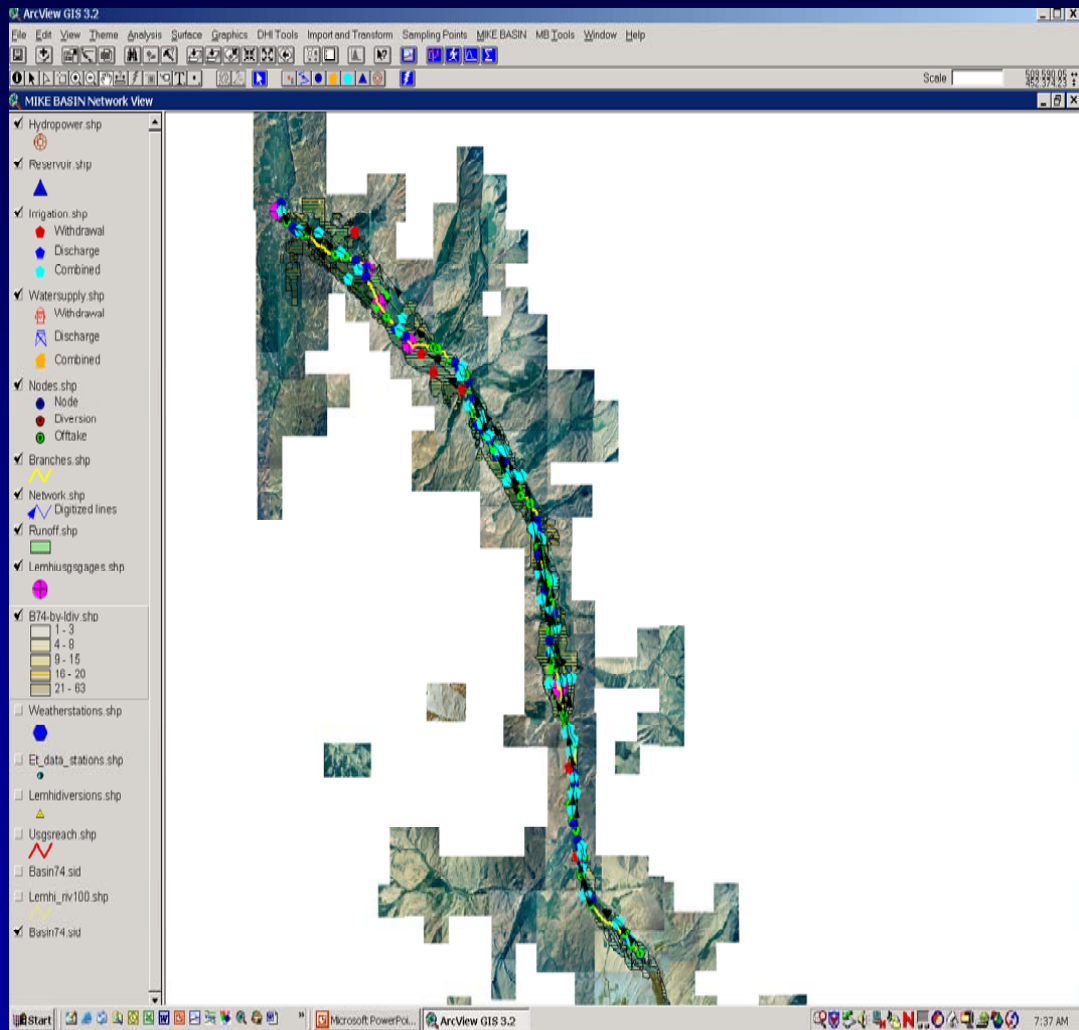
Eastern Snake Plain Aquifer

- Flow of aquifer is generally southwesterly
- Diversions upgradient from Thousand Springs impact flows in the Thousand Springs area, to some extent
- Reduction in flow does not necessarily constitute injury



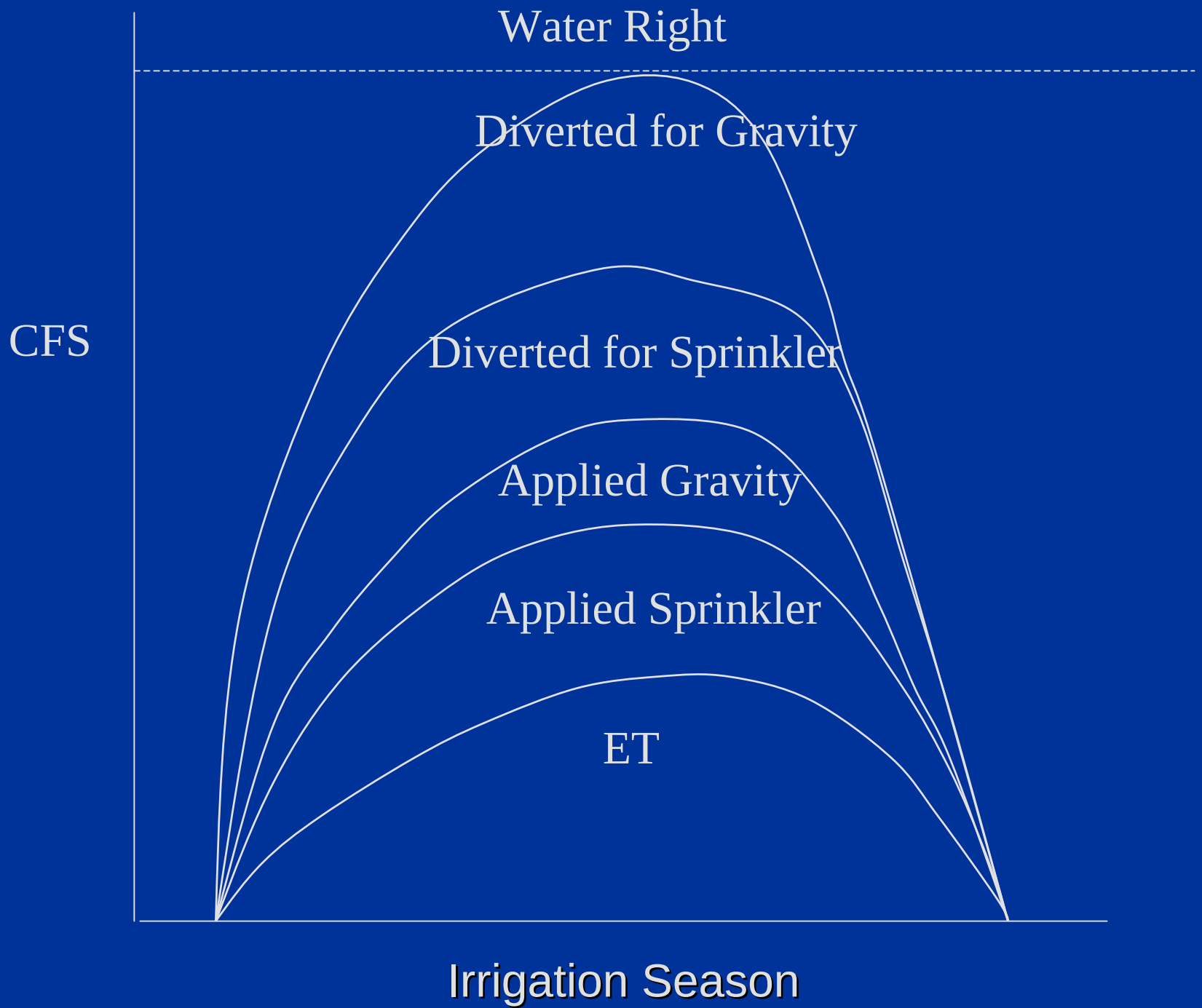
IDWR Modeling

- IDWR develops and maintains many types of models
- It appears that the MikeBasin model has utility in the Thousand Springs Area
- This model has been used successfully by IDWR in other basins (e.g. Lemhi and Upper salmon)



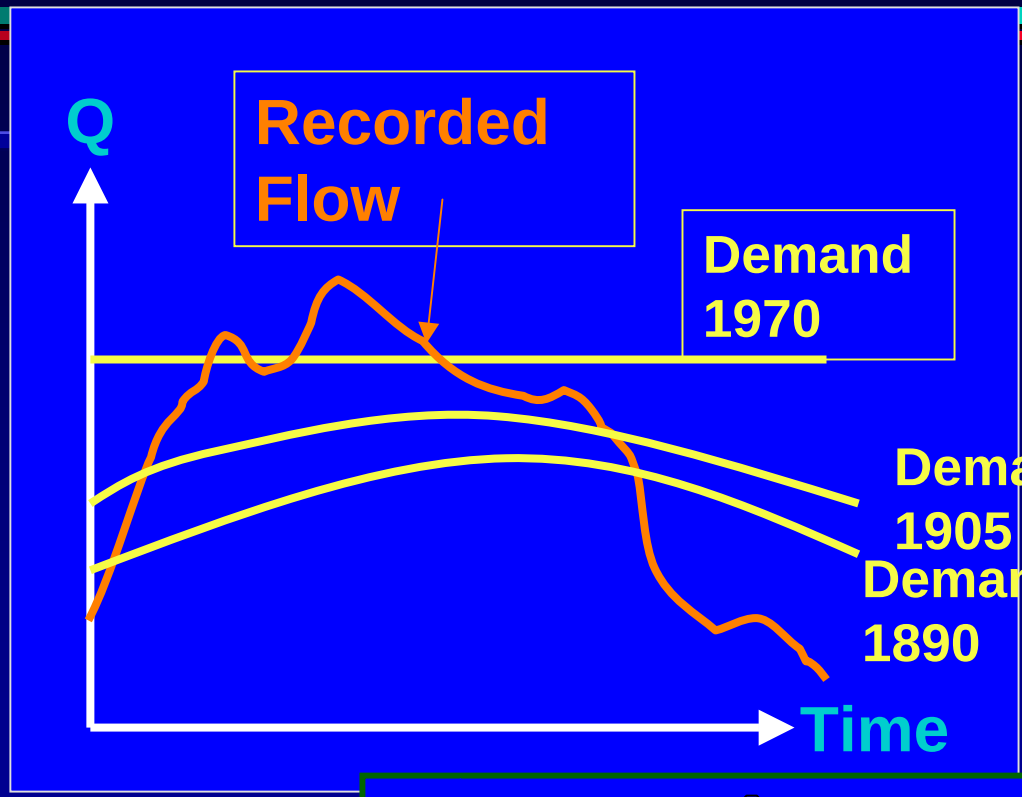
Stakeholder Involvement

- IDWR experience is that involvement of stakeholders improves the water management **process** and **outcome**


Water Right
Diverted for Gravity
CFS
Diverted for Sprinkler
Applied Gravity
Applied Sprinkler
ET
Irrigation Season

Thousand Springs

TSMBM: Comparing Recorded Water Distribution with Demand



Timeline

- **May 2003**
  - Karl Dreher announces at a Water District 130 Mitigation Meeting an initiative for Phases 1a and 1b
- **Summer 2003**
  - Phase 1a: Contract drafted and funding sought
  - Phase 1b: Investigation conducted
- **Fall 2003**
  - Phase 1a: Funding secured, work begins
  - Phase 1b: Work products developed

Timeline (cont.)

- Winter 2003-2004
  - Phase 1a: Stakeholder input gathered and Model developed
  - Phase 1b: Work products finalized
- Spring and Summer 2004
  - Phase 1a: Model completed and promulgated
  - Phase 1b: Thesis written

Some Benefits of the MikeBasin Model

- The wateruser who has solid evidence of his/her water diversions is in a better position to seek relief from reduced flows
- MikeBasin enables investigation of management alternatives (like lining canals) – thus ensuring that costly projects will have desired impacts
- MikeBasin enables a water budget analysis that cross-checks ditch measurement data

Questions?